CLAIMS

1. An apparatus (1) for sorting packages, comprising means (2) for supplying the packages to at least a station (3) for their manipulation and orientation, characterised in that the manipulating station (3) comprises at least a manipulator head (7) having at least two degrees of freedom of motion.

2. An apparatus as claimed in claim 1, characterised in that the manipulator head (7) is movable by translation according to the axes of an orthogonal Cartesian triad.

3. An apparatus as claimed in claim s 1 or 2, characterised in that the manipulator head (7) is movable by rotating about a substantially vertical axis.

4. An apparatus as claimed in claim 1, characterised in that the manipulator head (7) comprises gripping means to displace the packages.

5. An apparatus as claimed in claim 4, characterised in that the gripping means are grippers provided with gripping appendages (8a;8b), a first appendage (8a) being integral with the structure of the manipulator head (7) and a second appendage (8b) being integral with a rod (9) which can slide inside a corresponding cylinder (10) obtained in the structure of the head (7).

6. An apparatus as claimed in claim 1, characterised in that the means (2) for supplying the packages to the manipulating station (3) comprise a pair of conveyor belts (4;5).

7. An apparatus as claimed in claim 6, characterised in that each conveyor belt is associated with:

at least an actuating motor;

at least a sensor for counting the RPM of the motor;

at least a photocell for detecting the presence of a package on a belt;

at least a processor.

8. An apparatus as claimed in claim 1, characterised in that it comprises a plurality of

manipulating stations (3), each of which is provided with a manipulator head (7) having at least two degrees of freedom of motion.

9. A method for putting in step packages conveyed by conveyor belts set side by side, characterised in that it comprises the following steps:

detecting the package positioned ahead;

measuring the RPM of an actuating motor of a first belt whereon the package positioned ahead is located;

increasing a counter as a function of the RPM of the motor of the first belt;

decreasing the velocity of advance of the first belt as a function of the value assumed by the counter;

sensing the alignment of the packages;

measuring the RPM of an actuating motor of a second conveyor belt whereon the package positioned behind is located;

decreasing the counter according to the RPM of the motor of the second belt;

increasing the velocity of advance of the second conveyor belt as a function of the value assumed by the counter.

10. A method as claimed in claim 9, wherein the detection of the package positioned ahead and the sensing of the alignment of the packages take place by means of at least a pair of photocells.